

Thesis Experience

Sietse van de Riet
Product and Process Technology
Research project

What was the connected research group or company?

- A multinational electronics manufacturer

How did you find your project?

- I approached several professors to discuss ongoing projects and new opportunities

What was the content of your project?

- Product technology, polymer blends and surface properties. The project entailed preliminary literature research into polymer blends, morphology, crystallization, compatibilization, selective migration and processing conditions. Then, the hypothesis had to be tested by creating a set of blends and analysing them. It all started with 100 kg of plastic pallets and a blender. Thermal properties, infrared spectroscopy, contact angle, scanning electron microscopy and glossiness analysis were performed. You find out that working in the laboratory is not as easy and efficient as one might think. Equipment is booked by other researchers or broken, making you change your approach and expectations continuously. Time management and being your own project manager are essential to making your research experience somewhat efficient and valuable.

What did find enjoyable about the project and what not?

- A great aspect of this research project was the applicability of academic content, as the research was supported by the business. This makes a project more tangible, relating it to a bigger picture and considering business aspects like a true IEM student. A downside of the project was the fact that everything was new. There was no pre-work done by another student, no PhD supervision, just the professor, which can complicate things in terms of logistics and planning.

Why did you choose this project?

- Because of the challenging content and related business applications

Tips & Tricks for finding and executing a Research or Design Project.

- Start early with orientation, talk to other students and their projects, approach professors when you can formulate what interests you have, connect with people who are currently working on a similar project or doing pre-work, ask for some introduction literature, stick to your planning and do not be afraid to ask for help!